

Work Order ID 104387***104387***

Page 1

July-09-13 12:54:28 PM

Item ID: D2012-111

Accept

N900040100

Setup Start

NS1

Revision ID:

Stop

NS2

Item Name: Bracket

Start Date: 7/09/13 Start Qty: 4.00

4

Cust Item ID:

Required Date: 7/09/13 Req'd Qty: 4.00

4

Customer:

Reference:

Approvals: Process Plan: MJDate: 13-07-10

Tooling:

Date:

Run Start

NR1

QC:

Date:

SPC (Y/N):

Date:

Stop

NR2

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
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Draw Nbr	Revision Nbr
D2012-111	Rev A

100 0.00

100 FLOW WATER JET

Waterjet

Memo

0.00

5 0 Jm13-09-25

FLOW CNC Waterjet

304.063

1-Cut as per Dwg D2012-111

Dwg Rev: AProg Rev: A

2-Deburr if necessary

110 0.00

110

QC

Quality Control

Memo

0.00

5 0 Jm13-09-25

120 0.00

120

QC

Quality Control

QC8- Inspect parts - second check

0.00

DAS
27
9-890.00 13 9 26

5

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only

<p>Work Order: _____</p> <p>Part No. _____</p> <p>NCR No. _____</p>	DISPOSITION Rework <input type="checkbox"/> Scrap <input type="checkbox"/> Use-as-is <input type="checkbox"/> Suspected Unapproved <input type="checkbox"/>	AGAINST DEPARTMENT/PROCESS Skid-tube <input type="checkbox"/> Crosstube <input type="checkbox"/> Machining <input type="checkbox"/> Small Fab <input type="checkbox"/> Thermoforming <input type="checkbox"/> Finishing <input type="checkbox"/> Large Fab <input type="checkbox"/> Composite <input type="checkbox"/> Water Jet <input type="checkbox"/> Prod. Eng. Coor. <input type="checkbox"/> Rec/Store/Packaging <input type="checkbox"/> Supplier <input type="checkbox"/> Engineering <input type="checkbox"/> Quality <input type="checkbox"/> Other <input type="checkbox"/>
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Root Cause	Date	Step	Qty	Description of work order update or non-conformance	Initial Chief Eng	Action Description	Sign & Date	Verification	QC Inspector
Design									
Doc/Data									
Equip/Tooling									
Handling/Pre									
Material									
Operator									
Offset/Setup									
Process									
Supplier									
Training									
Transport									
Unapproved									

FAULT CATEGORY

Landing Gear	General		
Bending	Bend <input type="checkbox"/>	Folio/Program <input type="checkbox"/>	Outside Dimensions <input type="checkbox"/>
Centre Not Concentric	BOM/Route <input type="checkbox"/>	Grain <input type="checkbox"/>	Pressure/Forced <input type="checkbox"/>
Cracks	Broken/Damage/Defect <input type="checkbox"/>	Hardware <input type="checkbox"/>	Set-up <input type="checkbox"/>
Crimp/Kink/Ripple/Wave	Burrs <input type="checkbox"/>	Inspection Incomplete/Unqualified <input type="checkbox"/>	Temperature/Cure <input type="checkbox"/>
Cuffs	Contamination <input type="checkbox"/>	Instructions Incomplete/Unclear <input type="checkbox"/>	Part Incorrect <input type="checkbox"/>
Crushing	Countersink <input type="checkbox"/>	Misaligned/off center <input type="checkbox"/>	Part Lost/Missing <input type="checkbox"/>
Heat Treat	Cut Too Short <input type="checkbox"/>	Mislabeled <input type="checkbox"/>	Part Moved <input type="checkbox"/>
Inspection Strip in Tube	Drawing <input type="checkbox"/>	Misread <input type="checkbox"/>	Positioned Wrong <input type="checkbox"/>
Marks/Chatter	Drill Holes <input type="checkbox"/>	Off-set <input type="checkbox"/>	Power Loss/Surge <input type="checkbox"/>
Turning Sequence	Finish <input type="checkbox"/>	Out of Calibration <input type="checkbox"/>	Other <input type="checkbox"/>
Wave/Twist in Tube	Fit/Function <input type="checkbox"/>	Out of Sequence <input type="checkbox"/>	

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Page 2

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Cust Item ID:

Required Date: 7/09/13

Req'd Qty: 4.00

4

Customer:

Reference:

Approvals:	Process Plan: _____	Date: _____	Tooling: _____	Date: _____	Run	Start	*NR1*
	QC: _____	Date: _____	SPC (Y/N): _____	Date: _____	Stop		*NR2*

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
130 *130* Small Fab	Small Fab Memo Deburr if necessary.	0.00	N/A	S					
140 *140* QC Quality Control	QC5- Inspect part completeness to step on W/O Memo	0.00 0.00							
150 *150* Packaging Packaging	Identify as per dwg & Stock Location: <u>STW 3</u> Memo	0.00 0.00							DA 32 88
			13/7/26	5					

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____

Date: _____

Work Order update only

Work Order: _____	DISPOSITION	AGAINST DEPARTMENT/PROCESS							
Part No. _____	Rework <input type="checkbox"/>	Skid-tube <input type="checkbox"/>	Crosstube <input type="checkbox"/>	Water Jet <input type="checkbox"/>	Engineering <input type="checkbox"/>				
NCR No. _____	Scrap <input type="checkbox"/>	Machining <input type="checkbox"/>	Small Fab <input type="checkbox"/>	Prod. Eng. Coor. <input type="checkbox"/>	Quality <input type="checkbox"/>				
	Use-as-is <input type="checkbox"/>	Thermoforming <input type="checkbox"/>	Finishing <input type="checkbox"/>	Rec/Store/Packaging <input type="checkbox"/>	Other <input type="checkbox"/>				
	Suspected Unapproved <input type="checkbox"/>	Large Fab <input type="checkbox"/>	Composite <input type="checkbox"/>	Supplier <input type="checkbox"/>					

Root Cause	Date	Step	Qty	Description of work order update or non-conformance	Initial Chief Eng	Action Description	Sign & Date	Verification	QC Inspector
Design									
Doc/Data									
Equip/Tooling									
Handling/Pre									
Material									
Operator									
Offset/Setup									
Process									
Supplier									
Training									
Transport									
Unapproved									

FAULT CATEGORY

Landing Gear	General							
Bending	Bend <input type="checkbox"/>	Folio/Program <input type="checkbox"/>	Outside Dimensions <input type="checkbox"/>	Pressure/Forced <input type="checkbox"/>				
Centre Not Concentric	BOM/Route <input type="checkbox"/>	Grain <input type="checkbox"/>	Over/Under tolerance <input type="checkbox"/>	Set-up <input type="checkbox"/>				
Cracks	Broken/Damage/Defect <input type="checkbox"/>	Hardware <input type="checkbox"/>	Part Incorrect <input type="checkbox"/>	Temperature/Cure <input type="checkbox"/>				
Crimp/Kink/Ripple/Wave	Burrs <input type="checkbox"/>	Inspection Incomplete/Unqualified <input type="checkbox"/>	Part Lost/Missing <input type="checkbox"/>	Weld <input type="checkbox"/>				
Cuffs	Contamination <input type="checkbox"/>	Instructions Incomplete/Unclear <input type="checkbox"/>	Part Moved <input type="checkbox"/>	Wrong Stock Pulled <input type="checkbox"/>				
Crushing	Countersink <input type="checkbox"/>	Misaligned/off center <input type="checkbox"/>	Positioned Wrong <input type="checkbox"/>					
Heat Treat	Cut Too Short <input type="checkbox"/>	Mislabeled <input type="checkbox"/>	Power Loss/Surge <input type="checkbox"/>	Other <input type="checkbox"/>				
Inspection Strip in Tube	Drawing <input type="checkbox"/>	Misread <input type="checkbox"/>						
Marks/Chatter	Drill Holes <input type="checkbox"/>	Off-set <input type="checkbox"/>						
Turning Sequence	Finish <input type="checkbox"/>	Out of Calibration <input type="checkbox"/>						
Wave/Twist in Tube	Fit/Function <input type="checkbox"/>	Out of Sequence <input type="checkbox"/>						

Work Order ID 104387

July-09-13 12:54:28 PM

104387

Page 3

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Start Date: 7/09/13 Start Qty: 4.00

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Cust Item ID:

Required Date: 7/09/13 Req'd Qty: 4.00

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Customer:

Reference:

Approvals:

Process Plan:

Date:

Tooling:

Date:

Run Start

NR1

QC:

Date:

SPC (Y/N):

Date:

Stop

NR2

Sequence ID/
Work Center ID

Operation
Description

160

QC21- Final Inspection - Work Order Release

Set Up/
Run Hours

Tool ID

Tool #

Plan
Code

Accept
Qty

Reject
Qty

Reject
Number

Insp.
Stamp

160

QC
Quality Control

Memo

0.00

[Signature] / Dm 13/09/27.

ABOKA

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____

Date: _____

Work Order update only

Work Order: _____

DISPOSITIONRework Scrap Use-as-is Suspected Unapproved **AGAINST DEPARTMENT/PROCESS**Skid-tube Machining Thermoforming Large Fab Crosstube Small Fab Finishing Composite Water Jet Prod. Eng. Coor. Rec/Store/Packaging Supplier Engineering Quality Other

Root Cause	Date	Step	Qty	Description of work order update or non-conformance	Initial Chief Eng	Action Description	Sign & Date	Verification	QC Inspector
Design									
Doc/Data									
Equip/Tooling									
Handling/Pre									
Material									
Operator									
Offset/Setup									
Process									
Supplier									
Training									
Transport									
Unapproved									

FAULT CATEGORY

Landing Gear	General				
Bending	Bend		Folio/Program	Outside Dimensions	Pressure/Forced
Centre Not Concentric	BOM/Route		Grain	Over/Under tolerance	Set-up
Cracks	Broken/Damage/Defect		Hardware	Part Incorrect	Temperature/Cure
Crimp/Kink/Ripple/Wave	Burrs		Inspection Incomplete/Unqualified	Part Lost/Missing	Weld
Cuffs	Contamination		Instructions Incomplete/Unclear	Part Moved	Wrong Stock Pulled
Crushing	Countersink		Misaligned/off center	Positioned Wrong	
Heat Treat	Cut Too Short		Mislabeled	Power Loss/Surge	Other
Inspection Strip in Tube	Drawing		Misread		
Marks/Chatter	Drill Holes		Off-set		
Turning Sequence	Finish		Out of Calibration		
Wave/Twist in Tube	Fit/Function		Out of Sequence		

Picklist Print

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Work Order ID: 104387

Parent Item: D2012-111

Parent Item Name: Bracket

Start Date: 7/09/13

Required Date: 7/09/13

Start Qty: 4.00

Required Qty: 4.00

Comments: IPP: C00.05.02Now laser cutEC

IPP D 07.01.24 waterjet EC

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Qty per Kit	Total Qty	Qty Issued	Date Issued	Status
M304S16GA 304/316 Sheet .063		Purchased	No			100	sf	394.0102	0.0215	0.0905264 0.25		JmB-09-25	

Location	Loc Qty	Loc Code
MAT020	394.0101686	
122245	0.1713688	
123136	140.8	
124428	23.61	
124572	2.0181688	
125599	12.610631	
M126159	214.8	

126915

126915

DQA: _____ Date: _____

Date:



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only

Work Order: _____				DISPOSITION		AGAINST DEPARTMENT/PROCESS					
				Rework <input type="checkbox"/> Scrap <input type="checkbox"/> Use-as-is <input type="checkbox"/> Suspected Unapproved <input type="checkbox"/>	Skid-tube <input type="checkbox"/> Machining <input type="checkbox"/> Thermoforming <input type="checkbox"/> Large Fab <input type="checkbox"/>	Crosstube <input type="checkbox"/> Small Fab <input type="checkbox"/> Finishing <input type="checkbox"/> Composite <input type="checkbox"/>	Water Jet <input type="checkbox"/> Prod. Eng. Coor. <input type="checkbox"/> Rec/Store/Packaging <input type="checkbox"/> Supplier <input type="checkbox"/>	Engineering <input type="checkbox"/> Quality <input type="checkbox"/> Other <input type="checkbox"/>			
Part No. _____											
NCR No. _____											
Root Cause	Date	Step	Qty	Description of work order update or non-conformance	Initial Chief Eng	Action Description	Sign & Date	Verification	QC Inspector		
Design											
Doc/Data											
Equip/Tooling											
Handling/Pre											
Material											
Operator											
Offset/Setup											
Process											
Supplier											
Training											
Transport											
Unapproved											
FAULT CATEGORY											
Landing Gear				General							
<input type="checkbox"/> Bending <input type="checkbox"/> Centre Not Concentric <input type="checkbox"/> Cracks <input type="checkbox"/> Crimp/Kink/Ripple/Wave <input type="checkbox"/> Cuffs <input type="checkbox"/> Crushing <input type="checkbox"/> Heat Treat <input type="checkbox"/> Inspection Strip in Tube <input type="checkbox"/> Marks/Chatter <input type="checkbox"/> Turning Sequence <input type="checkbox"/> Wave/Twist in Tube				<input type="checkbox"/> Bend <input type="checkbox"/> BOM/Route <input type="checkbox"/> Broken/Damage/Defect <input type="checkbox"/> Burrs <input type="checkbox"/> Contamination <input type="checkbox"/> Countersink <input type="checkbox"/> Cut Too Short <input type="checkbox"/> Drawing <input type="checkbox"/> Drill Holes <input type="checkbox"/> Finish <input type="checkbox"/> Fit/Function							
				<input type="checkbox"/> Folio/Program <input type="checkbox"/> Grain <input type="checkbox"/> Hardware <input type="checkbox"/> Inspection Incomplete/Unqualified <input type="checkbox"/> Instructions Incomplete/Unclear <input type="checkbox"/> Misaligned/off center <input type="checkbox"/> Mislabeled <input type="checkbox"/> Misread <input type="checkbox"/> Off-set <input type="checkbox"/> Out of Calibration <input type="checkbox"/> Out of Sequence							
				<input type="checkbox"/> Outside Dimensions <input type="checkbox"/> Over/Under tolerance <input type="checkbox"/> Part Incorrect <input type="checkbox"/> Part Lost/Missing <input type="checkbox"/> Part Moved <input type="checkbox"/> Positioned Wrong <input type="checkbox"/> Power Loss/Surge							
				<input type="checkbox"/> Pressure/Forced <input type="checkbox"/> Set-up <input type="checkbox"/> Temperature/Cure <input type="checkbox"/> Weld <input type="checkbox"/> Wrong Stock Pulled							
				<input type="checkbox"/> Other							

DART AEROSPACE LTD	Work Order:	104387
Description: Bracket	Part Number:	D2012-111
Inspection Dwg: D2012-111	Rev: A	Page 1 of 1

FIRST ARTICLE INSPECTION CHECKLIST

X First Article Prototype

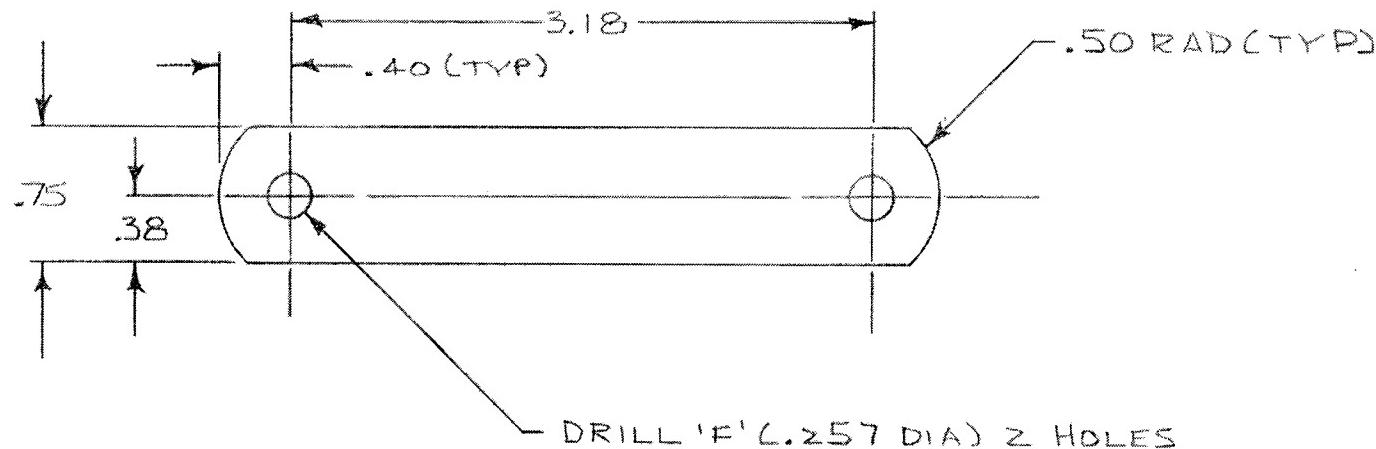
21

Measured by:	Jm	Audited by:	9-89	Prototype Approval:	N/A
Date:	13-09-25	Date:	13-9-26	Date:	N/A

Rev	Date	Change	Revised by	Approved
A	07.02.09	New Issue	KJ/JLM	
B	08.07.03	Inspection Dwg and Rev correction	KJ/DD	

SHOP COPY
RETURN TO
ENGINEERING
UNCONTROLLED COPY
SUBJECT TO AMENDMENT
WITHOUT NOTICE
VOLUME & ORDER
104387 MCJ

1307 10



NOTES: 1. MAT'L AISI 304/316 CRES
.063 THICK

A	REVISION <i>44</i>	THIS DRAWING IS PRIVATE AND CONFIDENTIAL AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS NOT TO BE USED FOR ANY PURPOSE OR COPIED OR COMMUNICATED TO ANY OTHER PERSON WITHOUT THE PERMISSION OF DART AERO.	RIVET CODE SHALL BE PER HAS 523		PART NO.	ITEM	DESCRIPTION	MATERIAL	SPEC./VENDOR	
<i>93</i>	DRAWN		BASIC CODE	DIA. DASH NO. W=HEAD NEAR SIDE F=FAR SIDE	CONTRACT NO.		DART			DART AERO ACCESSORIES INC. VANCOUVER CANADA
	APPROVED		DIN/ASME DIGIT NO. OF SHEETS C=CONTURSINK		LENGTH DASH NO. W=SPOTWELD	DRAWN <i>HATTON</i>	DATE <i>06/03/93</i>			
<i>REDRAWN FROM D2012-111 3/93</i>	DESCRIPTION OF CHANGE	REQUIREMENTS — UNLESS OTHERWISE SPECIFIED		BASIC CODES		TITLE				
		GENERAL	LIMITS	RJW/MS2012040 BB/MS2012040	STRESS	<i>BRADLEY</i>	<i>90/3/31</i>	BRACKET		
1. DIMENSIONS ARE IN INCHES 2. SURFACE ROUGHNESS $\pm .005$ 3. REMOVE SHARP EDGES. OIL MAX 4. THREADS PER IN. - S. 7742 5. HOLES PER ANO 10387		1. TOLERANCES — JOK $\pm .020$ MAX $\pm .010$ 2. ANGLES $\pm 1^\circ$ 3. PARALLELISM $.0025$ 4. ECCENTRICITY $.005$ MAX 5. SYMMETRY $\pm .005$ M/C CENTRE LINES $.005$		CHECKED <i>Bradley</i>	DATE <i>9/9/93</i>	CODE	DRNG NO.	REV. A		
REPORT ALL DISCREPANCIES — DO NOT SCALE										